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Journal Name:	British Journal of Applied Science & Technology
Manuscript Number:	2014_BJAST_12199
Title of the Manuscript:	EFFECTS OF THE INGESTION OF MICROWAVED FOOD ITEMS ON SOME HAEMATOLOGICAL PARAMETERS IN ALBINO WISTAR RATS
Type of the Article	Original Research Article

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound.

To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(<http://www.sciencedomain.org/page.php?id=sdi-general-editorial-policy#Peer-Review-Guideline>)



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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Compulsory REVISION comments	ABSTRACT Aims should be "Aim". Methodology: state the methods used in analyzing the sample and statistical analyses performed. The results were not appropriately presented in the abstract according to SDI template. It should be: "A significant decrease in the means of Red Blood Cell (769.0 +/- 15.36 to 683.6 +/- 13.41), White Blood Cell (..... to), Packed Cell Volume (..... to.....), Blood Haemoglobin (..... to), lymphocytes, monocytes and eosinophils counts of group 2 animals was shown when compared to group animals (P=.05). Remove all the abbreviations in the abstract and insert them in the body of the text instead. Keywords: Albino wistar rats; differential WBC count; haematological parameters; microwave INTRODUCTION Lines 67-70 "These changes include a decrease in all haemoglobin and cholesterol values especially the ratio of the High-Density Lipo-protein (HDL - good cholesterol) and the Low-Density Lipo-protein (LDL – bad cholesterol) values" (citation needed).	The change has been effected. The methods have been stated in the body of the manuscript. Tests of significance were performed on the two sample means, one from each group, on the same type of count using the two-tailed student's t-distribution at 5% significance level and 18 degree of freedom (v). These changes have been effected. These changes have been effected in the manuscript. The citation has been provided in the manuscript.



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	Lines 77-78 The objective of this work is was essentially to determine if there is a correlation between the ingestion of <i>microwaved</i> food items and haematological parameters. METHODS At what conditions (temperature, light and humidity) were the animals kept during the experiment? Did the author(s) measure the food intake of the animals during the experiment? If yes, how was it done? What was the rationale behind the use of one test group? Why not two or more test groups? Are experimental animals males, females or sex matched? Did the author(s) measure the haematological parameters before the commencement of the study? How were the means generated? What type of statistical analysis was applied/performed? Which software packed was used? Lines 97-101 “.....The blood samples collected into Ethyl Diathamine (EDTA) bottles were used for determination of haematological parameters. Total RBC and WBC counts were estimated according to the visual method of [7]. The percentage PCV was determined according to the haematocrit method of [8], the Hb concentration was estimated according to the cyanomethaemoglobin method of [8] while the differential white blood cell counts were estimated using the method of [9]”.	This change has been effected in the manuscript. The animals were kept in a laboratory under controlled light and at the temperature range of 20°C – 24°C. The animals were fed 3 times daily and they never left any food in their cages. The authors needed the control group (group 1) and the exposed group (group 2) for this particular study. The animals were males as indicated under Experimental Design in order not to have misleading results. All animals were clinically normal at the point of purchase and on arrival. The means were generated using $\sum_{i=1}^{10} x_i / n$ where n = 10. The statistical analysis has been included in the manuscript. The microsoft office excel was used in all computations.
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	These are incomplete sentence. Please, insert the specific method. I suggest the authors use the following format “differential white blood cell counts were estimated using the method as described by [9]. RESULTS AND DISCUSSION The exact statistical p-values of the analyzed haematological parameters were not stated in the table. The level of significance, number of animals per group and the total number of animals used should be stated below the table (in italics) before the footnotes. Table 1 and 2 were not properly inserted in the body of the text. The authors inserted the caption of their tables instead which made no sense. What is the implication of decreased Lymphocytes, Monocytes and Eosinophils counts in this study? CONCLUSION Line 148 “The study has shown the effects of microwave radiation on food items.” This should be removed completely as it does relate cohesively with the aim of the study. REFERENCES References 4 and 8 should be properly written according to SDI format. The references are not recent.	These changes have been effected. These changes have been effected in the manuscript. Tables 1 and 2 have been properly inserted. The decrease may be related to the destruction of the nutritive value of <i>microwaved</i> food items. The change has been effected. These changes have been effected in the manuscript.
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<u>Minor</u> REVISION comments	What was the age range of the experimental animals? How was this considered during the grouping of the animals? What were the weights of the animals in the two groups before and after the experiment? Were their weights (pre- and post-experiment) compared to ascertain weight loss or gain? The authors used “food items” in their manuscript, what were the food items? What was the duration of microwaving? What were the (photochemical) components of the food items before and after microwaving? How were the estimated values of the haematological parameters analyzed statistically? How are the results expressed? Mean $\pm$ SD or Mean $\pm$ SEM? How were the samples stored prior to analyses? Table should be explained and the explanation placed as a footnote below the table, so that readers would not have to refer to the text to understand it.	The animals were 10 – 11 weeks old on arrival. (They were in the same age range). The animals weighed between 180g – 200g before the experiment but their masses were not considered after the experiment because the authors were interested in haematological parameters. The food items were: boiled rice and stew, jollof rice, porrage beans, porrage yam and boiled fish. The duration was 4 minutes (most food outlets use 4 minutes to warm foods for sale according to our survey). The phytochemical (disease protection ability) components of the food items before and after <i>microwaving</i> were not considered. The statistical analysis has been included in the manuscript. Results are expressed as Mean$\pm$SD. Samples were counted no longer than 10 minutes after blood was drawn. These corrections have been effected in the manuscript.
<u>Optional/General</u> comments	I did not find any particular merit or novelty in this study which was overall poorly written. Authors should peruse the SDI template for manuscript preparation and revise their manuscript to meet the stated format.	



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	The experimental design, protocol and results of the study were poorly articulated, the literature to support their findings were inadequate, hence the shallow discussion. The author(s) did not compare their work with previous findings. “Though the biological hazards associated with microwave cooking have been reported, no laboratory measurements have been made, to ascertain if there is a correlation between the ingestion of <i>microwaved</i> food items and haematological parameters, using albino wistar rat specimens”. The above statement is not true; many works have been carried out on this topic. This shows that the authors did not do a thorough literature search. ethical issues -:“.....blood obtained by cardiac puncture for analysis”. The author(s) did not declare if they followed any guideline of any ethics committee for animal handling and sample collection.	These changes have been effected in the manuscript. All animal procedures were in strict accordance with the NIH Guide for the Care and Use of Laboratory Animals.
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